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**FARM**

# Journal



- ★ *La Cité des Jeunes de Vaudreuil*
- ★ *Progress in Nutrition*
- ★ *Impressions of Iowa*

July, 1965

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THE MACDONALD LASSIE

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**journal**

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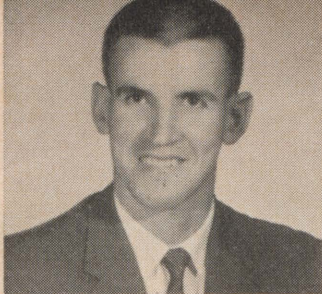
JULY 1965

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Our Cover: An artificial farm pond at St-Bruno de Guigues  
(Quebec Gov't. Photo)



## INSIDE

### THE EDITOR'S COLUMN

Many of the regular readers of this column will not be surprised to learn that Mark Waldron is now doing post-graduate work at the University of Wisconsin; this work, of course is in Adult Education. Mark plans to return to Macdonald when his studies are completed by the Fall of 1967.

Mark's closing remarks in the last two editorials in this journal were "It is the responsibility of all farm people in Quebec to say what they want and not wait to see what is going to be offered — especially in the field of rural adult education."

In the June Journal he wrote, "Take time to plan,

take time to think, take time to see how other people in the same business are thinking. Take time to relax. It is an investment in the future."

Mark is practicing what he preached, he is finding out more about the job of Adult Education. I know he looked forward to continuing his education when he would have "time to plan and time to think". However, during the two years I've known Mark, he never did take much time to relax; he always had many things to do.

I'm sure that all will join me in wishing Mark, Wilda, Peter and Paul success in their new endeavour.

## *The Weatherman and the Farmer*

Farmers often say that everyone is against them, the market, the consumer and the weatherman.

This isn't entirely true in the Province of Quebec. We know, at least, that the weatherman is trying to help the farmer. On May 3, a new service of agricultural weather forecast was inaugurated by the weather office at Dorval. Since then two farm forecasts have been prepared daily — one at 6 a.m. and a second one at 11 : 30 a.m.

Don Ross of the weather department at Dorval said, "We felt that the people on the farms were not getting quite as much weather information as they might like to have and perhaps not the type of information that they needed most. This year as an experiment we have started these special forecasts to try and see if we can do a little more for the farmer. We hope farmers will get these forecasts and find them useful in their operations."

Just how useful will these forecasts be? What weather information does a farmer need? These are the questions the staff at the weather office would like to know. They are ready to help. In return, they wish farmers would let them know what is good or bad about the new farm forecast.

Maybe you haven't heard the farm forecast as yet. If you haven't, ask your local radio station to use it; it is available to them the same as other weather reports. It may be a little longer or a bit of trouble for the radio station to use more than one forecast, but ask him anyway. He will be glad to know that you listen to his program and are interested enough to speak up when you want information.

The Weatherman is interested in agriculture and wants to help. If you haven't heard the Farm Weather Forecast, listen when you can. When you hear the forecast, if there is any information missing which you feel is necessary, please speak up. You can write to Mr. Don Ross, Weather Office, Dorval or to myself here at the College. We'll be glad to have your comments. This is an experiment; your help is important; the Weatherman is on your side.

★ ★ ★

One of Macdonald College's best known Scientists Dr. E. W. Crampton was honoured at McGill Convocation on May 28th, 1965. He was awarded the high honour of Professor Emeritus. For more about Dr. Crampton's work and ideas turn to page 8 of this issue.

*Galen Driver*

# La Cité des Jeunes de Vaudreuil

## A step forward in Quebec's Secondary education

by

**MARIE-LOUIS CARRIER**

Director General, Cité des Jeunes de Vaudreuil

**WITH THE ACTUAL** rapid increase of the school population and the expanding modern services, imperative to an up-to-date academic and professional education, the first question in sight is the economic solution for solving this always expensive problem with a maximum of educational effectiveness and a more expeditive economic administration.

For these reasons and many others, an increasing number of universities are grouping, on one property, the buildings of their faculties and services: the campus library, the auditorium playgrounds and a gymnasium.

With all these advantages, why shouldn't such a complex be applied to all academic institutions of the secondary school level?

In the Province of Quebec, this tremendous modern project has been announced for the first time at Vaudreuil-sur-le-Lac, on August 6th, 1960, by Quebec's Minister of Youth (that year) Honourable Paul Gérin Lajoie, who conceived the idea of an educational complex for the Vaudreuil-Soulanges county.

Later on, the realization of the project was placed in the hands of a seven member corporation under the presidency of Mr. Robert Caron, from Dorion; all serving without pay.

Today, la Cité des Jeunes de Vaudreuil is in full progress and will soon be an accomplished fact in parallel with the historic turning point of our quiet revolution in the field of academic and professional school programme.

Now, at "La Cité des Jeunes de Vaudreuil", on an area of about 75 acres located inside a belt may shunting the old road 17 between Dorion and Vaudreuil and facing the nice panorama offered by the Bay of Vaudreuil, three buildings are already in operation: the Apprenticeship Center, the Vaudreuil

Institute of Technology and, in the third building, a steam power and a filtration school-plant, academically affiliated to the Institute. More over, the secondary school with its 80 classrooms and laboratories, and a capacity of over 2,000 pupils, will be completed in June and ready for its official opening in September. The construction of the gymnasium has been underway since the middle of March. The most socially important building:

The Heart of la Cité des Jeunes, gathering the Cafeteria, the Library, the Auditoriums, the Art Center and the general administration, is now under study; and we have reason to believe that its construction will begin early this summer. All the academic premises, already in operation, in construction or projected, are or will be located on the inside periphery of the belt-away, thus leaving an empty area specially reserved for the Heart of La

Cité des Jeunes: the Community Center. All these projects are planned, for this secondary school level complex will be the most complete academic and community center ever realized in our country and even in North America.

### The Apprenticeship Center.

The Apprenticeship Center is a trade organization controlled by a Commission representing labour and employer groups of the construction trades for the district of Montreal. Its objectives are to train competent craftsmen for the building industry by offering a day course to beginners in the trade they choose and advanced courses to all construction workers.

In operation since early fall 1963, the Apprenticeship Center has registered, for the school term 1964-65, over 75 students in their 5 actual specialties: though, the Center has, today, a total



Professor Jean-Marc Lavigne with students specializing in Highway Technology during a field work period in surveying.

capacity of about 140 students and room for two more professions. And, with the projected premises, for answering an eventual increase in this field of education, the capacity can easily be doubled.

Among all the trades we meet in the field of construction, five of them are taught today at the Apprenticeship Center:

- a) **Bricklaying:**
- b) **Carpentry and Joinery:**
- c) **Electricity:**
- d) **Sheet Metalwork:**
- e) **Plumbing and Heating:**

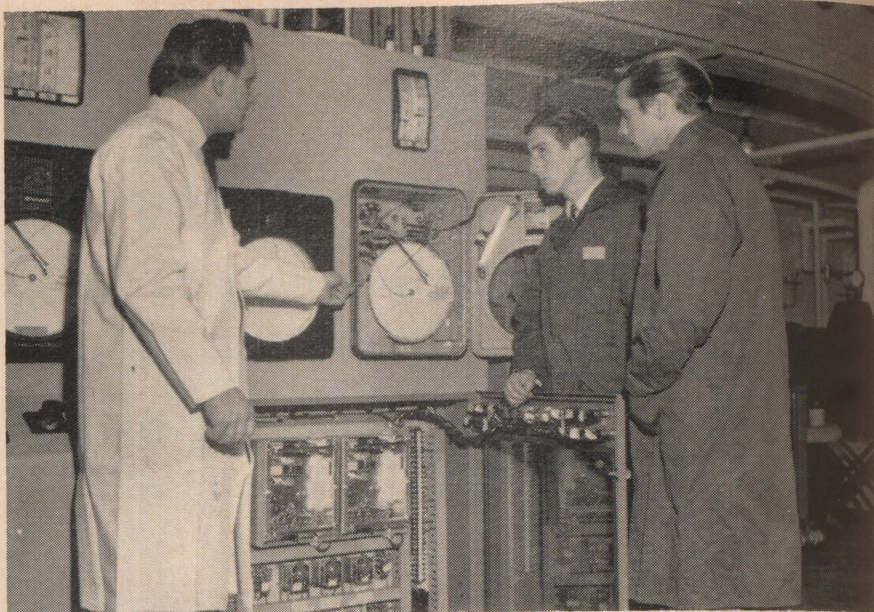
#### **The Secondary School.**

Though the Parent Report has just been published, its recommendations will gradually be applied, starting in September 1965. Consequently, the subjects taught today at our campus secondary school still answer to the same provincial wide programme with a noted academic improvement for the last four or five years according to some educational evolution and needs of that period. And, for the coming years, based on a deep and serious statistical analysis of our industrial and economical expectation, a new dimension is now officially born in our academic and professional education, and will be added to that previous aim, Arts, Sciences and Letters, under the term of: "La Technique".

This Technique will be incorporated, as soon as possible, even in our secondary school programmes for all young boys and young girls to have that chance to develop not only their academic aptitudes, but also their professional preference, in whatsoever family of profession it may be.



**Mr. Raymond Meilleur, head operator of the Filtration Plant, with students specializing in Water Treatment, in front of a filter instrument console.**



**Mr. Pierre Chaussé and two of his pupils specializing in Mechanical Technology, Heat Option, in front of the control panel.**

#### **The Vaudreuil Institute of Technology.**

At the Vaudreuil Institute of Technology, with authorization from the Department of Education, for answering more rapidly to urgent and more modern needs from industries, it has been possible to take an advanced guard initiative in the organization of exclusive specialties, at the Institute academic level, the actual three year course after grade eleven certificate. These exclusive specialties are:

#### **The Water Treatment Course.**

The Vaudreuil Institute of Technology, a section of the "Cit  des Jeunes", includes a water treatment department somewhat unique in the field of education. The courses in this section are given right in the filtration and puri-

fication plants. These installations, which supply not only the "Cit  des Jeunes", but also the homes in the vicinity, are the schoolplants where the student has the distinct advantage of seeing, studying and handling the machinery while in actual operation.

#### **Mechanical Technology—Heat Option.**

Realizing the demand for technicians, in the mechanical aspect of the building industries, the Institute of Technology of "Cit  des Jeunes" has added the mechanical technology-heat option division to its program of courses.

This decision, taken during the planning stage of the "Cit  des Jeunes", allowed the construction of a complete central heating plant, serving the dual purpose of supplying heat and as a medium of instruction. It allows the students to see, study and handle the component parts of an heating plant in actual operation.

#### **Industrial Production Technology.**

In the field of manufacturing, the province of Quebec must recognize the fact that it has to meet outside competition having at its disposal highly efficient equipment and consequently, high productivity. This advantage is often increased by lower skilled labour costs.

To come to grips with this problem, Quebec industry must lower its cost price, better the quality of its products, and increase production. To do this, greater dependence will have to be placed on new techniques and an intelligent organization of production.

In order that we may insure the development of secondary industry in Quebec as an economic feasibility, it will be necessary to implement these new methods in the shortest possible time.

The "Specialized Education Division" of the Department of Education, aware of this need, has inaugurated, at the Institute of Technology of the "Cité des Jeunes" at Vaudreuil, a course in industrial production technology. Within its sphere it will be the only institution of its kind which will prepare a class of technicians for secondary industry, a class that has been drawn, almost exclusively up to now, from the other Canadian provinces, or from outside Canada entirely.

### **Highway Technology.**

The "Highway Technology Course" prepares students for technical careers in both highway construction and in general public works.

In the first year, the student taking this specialty will begin with the varied technologies of earth-moving, surveying, soil-mechanics, and concrete and asphalt mixes. He will also take general courses in English, French, science, mathematics and drafting. The second year includes aerial-photo interpretation, topographical drafting, an introduction to highway planning, the study of resistance in various materials, and planning the structures employing reinforced concrete, together with a study of the techniques of construction used in the industry. In the third year, in addition to general formation courses, he will continue the study of infra-structures and super-structures, as well as specialized drafting. Courses in work planning, specifications writing, overall estimation and administration rounds out the training of the highway specialist.

### **Construction Technology — Architectural Option.**

The building construction trade is evolving at a most rapid pace in order to meet the heavy demands of modern living conditions and the endless variety of the population's needs. Planning, intelligent organization of work, setting and the actual construction of projects require an ever increasing number of qualified technicians to assist architects and contractors for their building programs.

The architectural option of the construction technology course gives young men a technical background that permits them to occupy various functions in the building construction trade.

### **Road & Heavy Duty Machinery Maintenance.**

Amongst the many industries related to the building field that have undergone a tremendous rise, material handling equipment occupies a position of great importance. The most active aspect of this industry is undoubtedly

road and heavy duty machinery which includes excavating and earthmoving machinery, cranes, hoists, pile-drivers, hauling trucks, concrete and asphalt plants, crushers etc . . .

Maintenance of these various machines requires competent and versatile mechanics. Considering the scarcity of technicians, a suitable workshop was included in the Vaudreuil Institute of Technology for a course in the maintenance of this varied equipment. This three (3) year course is intended for 2nd year high school graduates.

### **Electrical Maintenance.**

The industrial expansion of Quebec has opened the doors to a new class of workers: the maintenance specialists. The development of these men must be adapted in such a way as to be able to meet certain precise demands of industry, principally the maintaining of machines and buildings in a good state of repair, the result of which will assure a good level of production and complete security of the personnel, their equipment, and premises.

The electrician, in this particular field, holds a position of primary importance. The part of the maintenance electrician is one whereby he carries out preventative maintenance and repairs electrical breakdown in buildings or in those various machine involved in production lines. In large industries, a work stoppage of even a few moments can, by the number of people affected, mean the loss of thousands of dollars; having a competent maintenance electrician on hand means that the problems can be nipped in the bud.

Aware of this real need, and facing the demands of industry for this type of specialist, the Institute of Technology of Vaudreuil started an electrical maintenance course last September, a course designed to meet this need.

### **The Sport Center.**

The Sport Center, under construction since the middle of March, is a two floor building of 160 x 200 feet with two gymnasiums of 80 x 96, two palestres of 80 x 50, store rooms, cubicles for monitors, quarters for teams, dressing-locker suites and showers and, in brief, all specific services. According to the contractor execution programme, this Sport Center should be ready for its official opening early in 1966.

### **The Community Center: the Heart of "La Cité des Jeunes de Vaudreuil".**

This projet, at the present time in the hands of the architect, will be a polyvalent building offering a Cafeteria seat Auditorium an Art Center, a

Chapel, locals for school-life cultural and social activities and also for the general administration of the Corporation.

The Heart of La Cité des Jeunes, located at the very center of a circle like area of about 75 acres and surrounded by the belt road, will be connected to all the other educational premises built on the interior periphery of the loop-way, by sidewalks at the ground level, used in nice weather and underneath, a corridor for bad weather or winter months.

At different hours of the day, students and occasionally their parents and professors will have the privilege to share the same table at the cafeteria, at the public Library, will seat side by side at the auditorium, will meet in the Sport Center. This new atmosphere will create a favourable climate for more democracy in education, will improve relations between students and adults and will contribute to the eradication of prejudices by having them meet in common activities. This building and the Sport Center with all their services will also be open to the population of Vaudreuil-Soulanges area.

As planned in a near future, will be new premises with a great number of work-shops and also classrooms of specialized technology for professional education of young boys and young girls in the lower grades of the secondary programme; an extension to the Sport Center is also planned to house the swimming-pool, the arena and the fieldhouse; and outdoor sporting areas will be developed for football, baseball, softball, track and field, tennis courts, swimming pool, etc.

With all these buildings and their specific services, it will now be possible to offer the youth a more general education in the profession of their choice and preferences based on academic studies corresponding to their respective aptitudes. These academic aptitudes are among those faculties our school institutions must develop at the highest, for future generations to be better prepared to face current life problems of all sorts in addition to professional problems, which are always in increasing complexity.

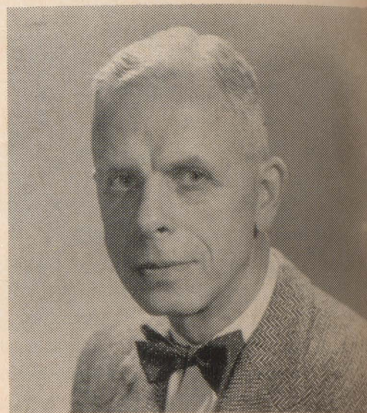
Moreover, since human beings live in collectivity, social problems have arisen; and with the rapid increase in the world population, sociologists have also much to do in their work of research for mankind to live in peace, and harmony. Consequently, it is almost imperative now that all school institutions think over their prospectus to make room for social sciences as soon as in the primary grades, starting with

*Cont'd on page 22*

# Dr. E. W. Crampton Speaks On . . .

## Progress In Nutrition

*After 43 years of research and teaching at Macdonald College, Dr. E. W. Crampton pauses to receive special recognition, and to reflect on achievements, goals and concepts in the field of nutrition.*



DR. E. W. CRAMPTON

Use of metabolic size as the base of nutritive requirements of man and animals.

Development in protein research has made it possible to supply protein suitable to replace fluid milk in the rations of humans and animals.

Knowledge of ruminant nutrition has lead the way to greater efficiency in the use of roughages.

Change in the feeding of meat animals has lead to the mass finishing of livestock in highly mechanized feed-lots.

An increasing number of feeds are being made from by-products.

Data processing machines are being used for the rapid formulation of lowest cost balanced rations for livestock.

These are selected by Dr. Crampton as the most significant changes in the field of nutrition in recent years. Why are these six achievements singled out from all the accomplishments of this fast moving science? Dr. Crampton's own explanations bring out the far reaching social and economic effects of each of them.

### The Relation of Size to Requirement

"It has now been recognized that different species of warm-blooded animals including humans, are fundamentally different sizes and models of the same metabolic machine. All have the same assortment of operating needs and when they are compared on the basis of metabolic size, and at comparable performance levels, they require the same operating needs, both qualitatively and quantitatively."

The concept and proof that metabolic needs of all species of warm-blooded animals are proportional to metabolic size rather than to simple body weight has been accepted by animal nutritionists since the early 1930's. Its application to the human dietary standard was first used in the 1948 Dietary Standard for Canada which reads, "In the present case a new approach has been brought forward by the use of body weight and of "Biologic Constants" related to body weight as a basis for the figures. The use of this approach must be credited to Professor E. W. Crampton of Macdonald College, P.Q.

Today all modern feeding or dietary standard for animals and man base their energy requirement figures on the metabolic rather than simple body weight.

### Protein as Good as from Milk

"Our ability to supply protein of acceptable biological quality in the rations of humans, farm animals and poultry without the use of milk is of special importance". Dr. Crampton goes on to say, "It is now possible to alleviate the broad problem of protein deficiency disease of man, something we do not see much of in this country, but in areas like the Far East, one of man's greatest problems."

About the effect of milk substitutes on animal feeding, Dr. Crampton says, "We can now make rations for young animals that have protein quality equal to that of milk", and unlike dependence on the limitations of an animal's mammary system, "it can be provided in any quantity required."

One of the serious drawbacks of milk has been its perishable nature. We can now avoid this problem and the other limiting factors of milk and milk powder by using other types of protein."

There are also important economic benefits for farmers. One of the most common is the early weaning of farm animals. In Dr. Crampton's words, "because we now can relieve breeding mammals of the need to feed their young, we can make more continuous use of their reproductive function, — a process that so far we have not been able to duplicate."

### Knowledge of the Function of the Rumen

The knowledge gained by the vast amount of research on rumen physiology is another achievement that Dr. Crampton lists in the top six. "By knowing the physiology, biochemistry and microbiology of the rumen we have learned what must be provided for maximum utilization of roughage by ruminants. This then, means greater efficiency in the use of roughages."

### The Mass Feeding of Meat Animals

In commenting on the marked change that has taken place in the feeding of meat animals. Dr. Crampton points to the big feedlots as one of the most significant changes in animal agriculture. "The oldtime stockman has almost disappeared. The man who runs the feedlot is an engineer, and the man who keeps the books is trained in Agro-business."

Dr. Crampton notes that this trend in livestock management has changed the emphasis of training in animal science at agricultural colleges. "Less and less emphasis is on individual animal management and more and more on Agro-business and on the disciplines underlying applied husbandry."

#### Feed By-Products

Turning to food technology for another major achievement of the nutrition field in recent years, Dr. Crampton selected the case of by-product feeds. "More and more livestock are being raised on products that

species, it is less significant so far as the ruminant is concerned. The ruminant complements the plant in the production of human food, and provides many industrial products used by the human as well."

#### Data Processing Machines for Ration Formulation

The use of data processing machines in the field of nutrition is one of the most recent developments. Dr. Crampton places it among the six big accomplishments of recent years.

"By using these machines to do the arithmetic and algebra, we can quickly come up with lowest cost ration balance-

#### Food Requirements of the Human Population

A lot is being said these days about the present and future problems of feeding the world. Dr. Crampton believes that more meaningful figures should be used in calculating the needs of the human population. "It disturbs me greatly that the figures given for the food requirements of the human population have been taken from standards that are not in fact minimum requirement figures, but rather tables which give the requirement plus an extra but unstated allowance, — a

## Profile — Dr. Crampton

Dr. Crampton has made an outstanding contribution to the world's knowledge of nutrition. The more than 100 scientific publications that bear his name are evidence of his fruitful career.

Few men have achieved as high a professional status as Dr. Crampton. He is a Fellow of the Royal Society of Canada; Commander of the Order of Merit, and honor and recognition award by the Province of Quebec; Fellow of the Agricultural Institute of Canada; member of the Canadian Council on Nutrition and of the U.S. National Research Council on Animal Nutrition. He is Past President and Fellow of the American Society of Animal Production and Past President of the Nutrition Society of Canada.

For his contributions to Animal Nutrition Research, Dr. Crampton received the first award of the American Feed Manufacturers Association in 1948; and in 1955 he was presented with the Morris-

son Award for research in animal production.

Some of Dr. Crampton's most notable contributions are in the field of swine nutrition, nutritional value of forage and other feeds, statistical methods of assessing feeding values, digestibility techniques, the evaluation of digestion coefficients and experimental designs for feeding trials. He has done outstanding work on the early weaning of farm animals. The concept of flexible formulae for meal mixtures for livestock originated with Dr. Crampton and was the forerunner of linear programming of livestock rations.

In 1960 the University of Reading in England awarded Dr. Crampton the degree of Doctor of Science for his work on the assessment of the nutritive value of forage crops.

Dr. Crampton is author of the text "Applied Animal Nutrition" and co-author of "Fundamentals of Nutrition".

The research of more than 70 graduate students who have received M. Sc. and/or Ph. D. degrees in Nutrition from Macdonald College has been directed by Dr. Crampton.

Dr. Crampton was born in Connecticut and came to Macdonald College in 1922 after obtaining his M. Sc. degree at Iowa State College. He later obtained his Ph. D. from Cornell University.

He was chairman of the Department of Animal Nutrition at Macdonald College from its inception in 1941 to 1960 when at 65 he was required by University regulations to relinquish Departmental Administration. From 1960 to his retirement in May 1965, he devoted full time to research and teaching. Dr. Crampton will continue to be active in nutritional work with several organizations and committees, and will maintain his office at Macdonald College.

are discarded in the processing of materials for human food." Using citrus fruit as an example, Dr. Crampton explains, "While the citrus fruits are increasingly being processed for juice for human use, the pulp, formerly considered of little or no value, is now ammoniated to increase its nitrogen content and, after drying provides a large portion of the roughage fed to many dairy animals in the orange-grape fruit regions.

"There have been many mistaken ideas about animals competing with the human for food," Dr. Crampton says. "Though this may be true in some

ed for all the nutrients known to be required by a given type of animal."

"There are about 6000 different animal feeds known, each one containing one or more of the 60 chemical entities that are nutrients in human and animal rations. To keep this data in useable form is a machine job.

Dr Crampton is presently chairman of a joint U.S. Canadian Committee responsible for the conduct of a mammoth project to assemble all the available data on these 6000 feed materials into a master table of feed composition. At present, the available data is punched on four million I.B.M. cards.

margin of safety, so called. Actually, the figures used for the protein needed are based on estimates of requirements that are about four times the true requirement of individuals. Similarly, the requirements for some of the vitamins are three or four times the known quantities that will protect from all detectable ill health that could be related to them. If we should recalculate the presumed food requirements of the human population in terms of the real requirements as distinct from the recommended allowances, the picture of food requirements would change materially."

# "FOOD FOR THOUGHT"

by

**Prof. Diane Raymond**

**School of Household Science**

**Macdonald College**



**PROF. RAYMOND**

**M**AN has always "tasted" food through a variety of senses — his eyes, his nose, his ears and his mouth. Which sense has predominated? This is often impossible to determine.

The eyes have it if it's a fresh, crisp salad or a luscious layer cake; the nose if it's a sizzling, hot steak; the ears probably of all the senses react most strongly to crunchy foods—celery, nuts or a crisp apple; the mouth to both the texture and the flavour where they are not first spotted by the other senses. Our ability to react or to "taste" foods depends on this application of the sensory organs, and it is a part of the pleasure of eating when foods we eat have a favourable reaction on one of the senses. We enjoy the meal; apart from a satisfied feeling there is a contented feeling. We have not simply met a physical demand of the body for energy but we had a certain sensual pleasure. Eating is fun, eating is excitement, adventure and challenge

when food stimulates and tantalizes the senses.

What seems to be happening to this fun in eating. We see more and more foods appearing on the market in forms that divest them of their greatest appeal, "taste". The rich, aromatic aroma of freshly brewed coffee that hits the nose as soon as the water and coffee combine, is not present in the "instant" versions. The turkey or chicken stewing in the pot on the top of the stove gave an additional flavour flip to the ultimate turkey fricasse or chicken a la king not now found in using the frozen dinner or the pre-prepared item. We have a generation of youngsters growing up who have never had to peel a potato and have settled quite happily for their potatoes in a box. Are they missing part of the pleasure of eating? Pleasure they don't even recognize as missing because they know no other; or are we placing false values on the old flavours and tastes, values that really weren't there

but are dragged out to buttress the arguments in favour of the old ways?

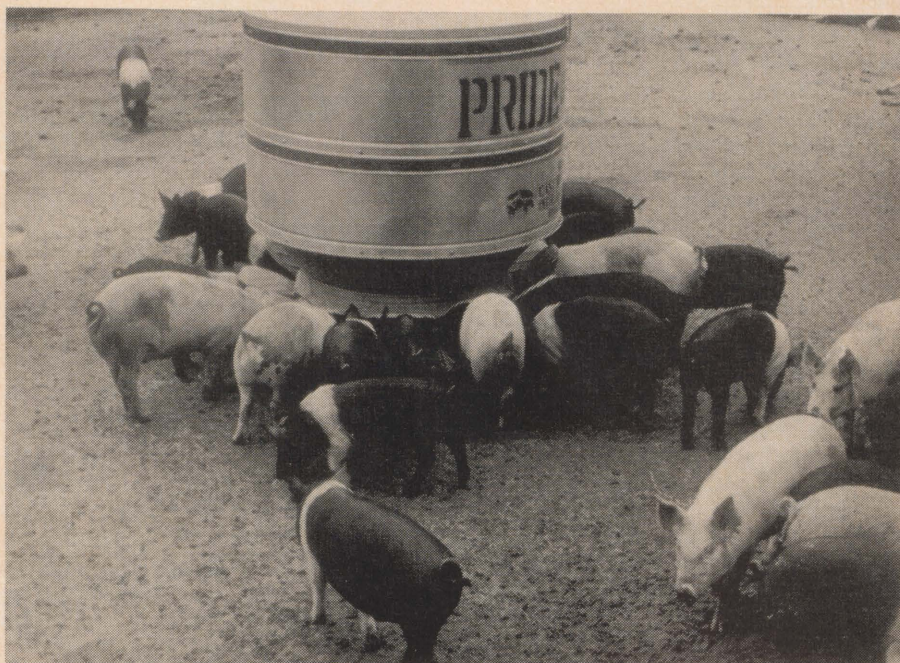
The unfortunate factor of our demand for foods that free the housewife from routine kitchen activity and allow her time for the community and family activities is that we have accepted the new products without demanding they be any more than convenient. The discriminatory individual detects a massive sameness of texture, composition and flavour in competing products but frequently little resemblance to the original product.

Spices and flavour developers are used to counteract this missing factor so that a sameness of flavour becomes more instead of less pronounced between items with texture and appearance similarity. Should we be contended to wonder when we eat a pre-processed food item — is this chicken or turkey? At least, we still know there is a taste difference to be expected — will the next generation?

Is this wrong? Is there any good reason why we should expect to get a definite response or satisfaction from a food item? In this day of hustle and bustle is there time to enjoy a meal, or should we merely expect to be adequately supplied with energy to carry on? Is taste, flavour and food enjoyment now as old-fashioned as peeling potatoes or making your own soup?

# IMPRESSIONS OF IOWA

by  
Walker Riley



***Iowa, the leading agricultural state in the American Corn Belt, produces almost as much beef as the Canadian total, three times as much pork, and 23 times as much corn. Early in June, Walker Riley toured the central livestock area of Iowa. Here are some of his impressions.***

***Iowa is working hard to develop a meat-type hog. Cross-bred pigs come in assorted colours & patterns. (John Phillips-Rural Co-operator photo).***

"Farm planning is very simple in Iowa. You plant as many acres as possible to corn. Then you feed it to the livestock of your choice, hogs or steers, or sell it for cash." That is how farming in this leading agricultural state was described to us on our three-day tour early in June. Field after field of corn in precise rows, the pattern broken only occasionally by alfalfa, oats or soybeans, tall silos, and a feedlot full of Angus, Herefords or Shorthorns outside almost every farm certainly confirmed that picture. However, some of the other ideas I had about Iowa didn't fit at all.

Our whirlwind tour started the last Sunday afternoon in May when we left Montreal airport, picked up the other ten members of the party and flew on to Chicago. From that point on, any pretense of formality was left behind. We were the only passengers aboard the ancient but comfortably casual aircraft which took us the last 350 miles due west into the heart of Iowa. As we passed over the darkening countryside, the pilot called out attention to the fan-shaped dots of lights of tractors working late into the night, the black outlines of the Mississippi River, and the many small towns blanketed with multi-coloured light. Midnight at Des Moines,

we were greeted like old friends by a member of the State Extension staff and his wife.

Next morning, we saw Iowa farmlands for the first time. My imagination had pictured flat fenceless prairies fields, with tall corn growing to the edges of endlessly straight roads. I had expected overwhelming bigness. But it was not so.

The part of Iowa we saw is pleasantly rolling countryside, family-operated farms with comfortable white frame houses and red barns, neatly fenced fields, and to my surprise, plenty of trees. In fact, it was not unlike much of the good farmland of Eastern Canada. Nor is their weather too different from ours. The annual rainfall is a little less; winter temperatures fall below zero; the last frost comes late in May. But the summers are hot and stay hot. That is why, we were told, one can hear the roar of corn growing in Iowa.

We visited four farms. Orville Kalsem, his sons John and Dave, have 500 acres mostly in corn which is all fed to 500 Angus steers brought in from Texas and New Mexico as weaned calves. Each week, a finished load is selected out for the Chicago market. At 1300 lbs., they are heavy by our standards, but the Kalsems cater to a limited mar-

ket for prime beef of this weight. As a sideline, they raise registered Quarter-horses for a growing demand. They employ no help.

Russell Frandsen, a pleasant young chap in his early thirties, grows 350 acres corn, 80 acres soybeans, and a little hay. His feeders include Holstein steers purchased in Montana at 11 to 15c. They sell for less, too, but he finds the profit equals that from the beef steers and spreads the risk. Russell's operation is so completely mechanized that, even with an old back injury, he can carry on if necessary without his one hired man.

Leo Bodensteiner, a hundred miles further northeast toward Iowa City, markets his corn through hogs — one thousand of them. Unlike our usual pattern of raising pigs in confinement, the Iowa practice is to raise them outside in paved lots or on pasture. The countryside is dotted with portable shelters.

Leo farms 740 acres. He owns 160 acres and rents the rest, a common practice in this area of high-priced land. He shares the value of the grain crop and the cash expenses fifty-fifty with his landlord. Leo takes part in the Farm Program, under which part of the farm is withdrawn from production and

planted to a cover crop which must not be harvested. For his contribution to reducing surpluses and conserving soil, he receives about \$40 yearly grant for each retired area.

The farm that pleased my eye was that of Rex Meyers and his father Frank. With 160 acres of that beautiful black Iowa loam, a comfortable landscaped home, a neat set of buildings and a third share in a full line of machinery, they appeared to be finding life very pleasant indeed. Push buttons, silo unloaders, and mechanical feed bunks make it possible for this father and son to look after 300 steers and 500 hogs without help. Rex, a former Voc. Ag-teacher, is very active as chairman of the local Rural Areas Development board, our equivalent of ARDA.

Against this background of farming, half a day was spent with members of the University extension staff who had given up their Memorial Day holiday to tell us about changes and trends in Iowa agriculture. The evenings, too, were spent in vigorous discussion with our farm and university hosts.

Altogether, I gathered some strong impressions of Iowa agriculture. Above all else is a supreme optimism regarding agriculture. No one we met had the slightest doubt that the present was good and future even better. Heavy losses the last two years feeding steers had not dampened their contagious enthusiasm. This year, prices are the highest in years.

Efficiency in the use of labour and time is remarkable. Of the farms visited, two employ one man each; the others are strictly family operations. All these farms had gross annual incomes over \$100,000. (The state average in farm management associations is \$36,000.) Hired help, we were told, is expensive and hard to find. One farm employee receives \$60 a week, plus house, electricity, meat, milk, garden, and a small poultry flock — equivalent to \$5000 a year.

Price of land is high. Few farms change hands and these rarely come on the open market. The Kalsems recently bought the neighbouring farm for \$650 an acre — a price somewhat higher than average. Rented land costs \$30 to \$40 an acre per year. We saw no trend to very large corporation farming. In fact, we sensed a strong belief in the future of the family farm; they say there is no other way for a young man to find the necessary capital.

There is keen competition for the limited supply of feeder cattle. Most come from the south-west, Texas and New Mexico, some from Canada. Cow-calf herds are on the increase in the state, replacing dairying in some areas.

We saw very few herds of feeder cattle on pasture. Most are purchased at 500 lbs. weight in the fall, allowed to glean the corn fields until the snow flies, then confined to the feedlot until slaughter.

Practices in corn growing are changing in Iowa. Rows widths are becoming narrower — down to 20 inches — as new equipment becomes available; equidistant planting is predicted. The use of chemicals for weed control is increasing. Atrazine is not as popular as at home possibly because the high organic soils render it less effective. Cultivation with rotary weeder and 2, 4-D spray are the present practices. Fertilizer rates are increasing. Anhydrous ammonia at 6¢ and less per pound nitrogen has become a highly competitive source of nitrogen.

In harvesting, the trend is to pickers and away from cribbing corn. This change has put pressure on drying facilities. Combines priced at \$11,000 and over are becoming common on farms over 500 acres. Many farms harvest and store corn in several forms, whatever best fits their feeding operation. High moisture shelled or crushed ear corn stored in the silo is gaining popularity. Kalsem stores his at 26%-28% moisture; Rex Meyer is down to 21%-23%. Meyer uses his combine to harvest both high moisture crushed ear corn and dry shelled corn. For the high moisture corn, he closes the concave tight (1/16 in.) and runs the cylinder at 1600 r.p.m. with reduced wind. He uses a special sieve. For dry corn, cylinder speed is 800 r.p.m. with 3/4" to 1" concave clearance. Many new silos confirm the reported trend to the greater use of whole plant silage in feeding steers. For finishing, Meyer feeds 10 lbs. silage plus 18 lbs. dry corn with protein supplement.

Iowa produces 20 million hogs a year which is one quarter the U.S. total and three times the Canadian production. Much attention is being paid to improving quality and the development of a meat-type hog. Crossbreds are popular; at the top of the list are Hampshire crosses. Our white breeds, Yorkshire, Landrace and Lacombe are not popular; they will not stand the stress we were told of the rugged Iowa management, nor will they cut-out a sufficiently high percentage of loin and ham.

Most Iowa farmers raise their own feeder pigs. Bodensteiner, for example, carries eighty Hampshire sows. The Farmers Hybrid Company, a powerful factor in this research and development program, supplies 4000 hybrid boars a year to breeders in the state. The charge of \$185 includes a breeding program and management advice. Their

selection program is based on three factors only — Average Daily Gain, Feed Conversion and Meatiness as determined by probing. Limited feeding is not practised or encouraged.

Other trends in the Iowa swine industry include earlier weaning, larger litters (7.2 in 1963), home mixing of feed, bulk handling to self-feeders, soybean oil meal as the only protein supplement, higher (14%) protein levels, and the use of the broad-spectrum antibiotics, aureomycin, terramycin, tylan, and S.P. 250. We saw little evidence of Rhinitis or virus pneumonia. Indeed, we were told, the two worst diseases affecting Iowa pigs were Corn-planting Disease and Corn-picking Disease!

Small specialized highly efficient packing plants are springing up all over the state, replacing the old centralized ones plagued with labour problems. The changes and trends were described to us in a noon-hour address by Frank Crabb, manager of Farm Best Co-op. This firm markets the nationally recognized High I.Q. (Iowa Quality) brand pork guaranteed to have a four square-inch loin eye. Buying, he told us, will be solely on "ham yield" within two years. In the Plant, computers will reduce the staff 25%. Skinning of cattle will be done by air-blast; carbon dioxide gas will be used for quick-chilling; irradiation will be used for preservation; there will be no hanging time. The chain-store butcher will disappear; all retail cutting will be done in the plant; freshness will be maintained by inert gas during transport. Incidentally, Mr. Crabb's definition of a small plant is one which handles less than 3800 hogs a day.

I went to Iowa fully expecting to be awed by the scale of farming, the efficiency and the yields in this fabled state. I was impressed with much that I saw. But I came home convinced that, substituting our own particular resources, there is no reason the agricultural prosperity of Iowa cannot be paralleled in Eastern Canada. Yields are not significantly greater; their markets are distant. Indeed, in many production and marketing techniques, our practices appear to lead.

The wealth of Iowa lies in its soils, rich and unbelievably deep, the heritage of centuries. Our wealth may be in the abundant rainfall, a resource without equal for forage crop production on the North American continent. Natural fertility can be substituted; rainfall, except for a fortunate few, cannot.

On second thought, perhaps Iowa's greatest asset is the unbounded enthusiasm, courage, and incurable optimism of her people.

# THE FAMILY FARM

PUBLISHED IN THE INTERESTS OF THE FARMERS OF THE PROVINCE

BY THE  
QUEBEC DEPARTMENT OF AGRICULTURE AND COLONIZATION

Compiled by T. Pickup of the Information and Research Service,  
Quebec Department of Agriculture and Colonization.

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**PHOTOGRAPHS BY**  
**OMER BEAUDOIN**



## CHAMPLAIN BARLEY

Barley growing has been steadily declining in Quebec since 1951, the area devoted to it having dwindled from 53,000 acres in that year to 13,900 in 1963. It seems that except in mixed grains barley is on the way out in Quebec in spite of the campaign in its favour by agriculturists. All sorts of explanations have been put forward for this decline in popularity — including the suggestion that lack of adaptability of the recommended varieties is one of the main reasons. In that case, it is hoped that the introduction of the outstanding new variety Champlain will revive interest in this valuable field crop. It is believed that Champlain will make an important contribution to barley growing both in pure stands and mixtures.

Champlain is a six-row, smooth-

awned, feeding type of barley resulting from a cross between the varieties Moore and Montcalm made at Macdonald College in 1952. After extensive testing in Quebec and other parts of Eastern Canada, the Quebec Seed Board recommended that Champlain be approved and released into commercial channels.

Champlain soon demonstrated remarkable productive capacity year after year under widely different conditions in all parts of the province, and elsewhere. It has also performed quite well in Western Canada. In other words, it is highly adaptable to a wide range of soil and climatic conditions; but it is in Quebec that it has shown to best advantage. Table 1 compares yields of Champlain in various parts of Quebec since 1959

**TABLE 1**

Average yields of five varieties of barley in different parts of Quebec (in bushels per acre).						
Variety	Montreal region 23 trials	Eastern Townships 8 trials	Lower St. Lawrence 10 trials	Lake St. John 5 trials	Abitibi- Temiskaming 4 trials	General Average 50 trials
O.A.C. 21	55.3	59.7	56.4	41.5	39.0	53.5
Montcalm	55.3	61.5	57.4	40.2	38.9	53.9
York	60.9	65.0	57.2	45.0	42.0	57.7
Parkland	59.2	64.9	56.0	50.7	42.4	57.3
Champlain	67.2	73.7	63.9	54.2	51.3	65.0

**TABLE 2**

Field qualities of five varieties of barley					
Variety	Days to maturity 16 trials	Strength of straw 40 trials	Length of straw 40 trials	Size of grain	Weight per bushel
O.A.C. 21	90	average to weak	38"	average	45 lb
Montcalm	92	average to weak	39"	average	49 lb
York	90	average to strong	34"	average	48 lb
Parkland	91	average to strong	36"	average	46 lb
Champlain	94	average to strong	36"	average	48 lb

with those of York, Parkland, Montcalm, and O.A.C. 21. It will be noted that Champlain had a higher production than these other varieties in all regions. Results obtained at 21 stations showed that Champlain outyielded all the other varieties in 17 cases and was slightly outyielded at only two stations. Table 2 gives a general idea of the average field qualities of Champlain in comparison with those of other recommended varieties. Local conditions may have some effect on one or more of these qualities.

#### Days to maturity

Champlain takes from two to four days longer to reach maturity than the other varieties mentioned. This later maturity may make it possible to harvest fields of oats and barley at approximately the same time on a farm, and will also be an advantage when these two cereals are grown together as mixed grains.

#### Strength and length of straw:

Straw strength or resistance to lodging is assuming greater importance as the fertility of our soils (and hence the tendency to lodge) are increased. Although Champlain has not as stiff a straw as Parkland, it is more than satisfactory in this respect and appreciably better than Montcalm and O.A.C. 21.

Champlain's straw length is average — similar to Parkland, a little shorter than Montcalm but a little longer than York.

#### Grain qualities :

Champlain produces grain of normal size, on the basis of weight of 1000 kernels. Its weight per bushel compares favourably with that of other varieties. A normal bushel weight in the case of barley indicates that the awns break off easily and threshing presents no problem. Champlain is a feed grain, i.e. it is used only for feed.

#### Resistance to disease :

Although Champlain does not have outstanding resistance to disease, it is satisfactory in this regard. It shows some resistance to loose smut. It is susceptible to covered smut, which can however be controlled by seed disinfection.

#### General appearance :

Champlain looks well in the field and one soon learns to recognize it. The heads are upright rather than drooping, and the awns tend to be directed sideways as a result of its semi-compact head in which the grains press against one another and point somewhat outwards. This relative compactness results in shorter heads which nevertheless contain as many grains as longer but looser heads.

#### Component of mixed grains :

Without going into the question of the relative merits of mixed grains and pure stands, we should simply like to point out to devotees of mixed grains that Champlain lends itself well to the practice and may perhaps be of most use in that way. Parkland and

York play a very useful role in mixtures because of their strong straw, but they are both early and ripen before the oats (especially Garry oats). The later maturity of Champlain represents a marked improvement in this respect.

Results of 19 comparative trials in 1962 confirm this progress. Mixtures containing Champlain looked well and gave excellent yields. Champlain proved a good competitor when sown with oats: the percentage of barley in the crop was generally than in the seed mixture. In soils where barley does well, a seeding rate of 60% oats and 40% barley (by weight) gave very good results.

#### Seed stocks :

Multiplication of seed stocks of Champlain has been entrusted to the commercial firm of Hogg and Lytle of Ontario under an agreement with Macdonald College. In 1964, about 7000 bushels of certified were expected to be available to farmers through their co-operatives and seed dealers.

(Translation of an article by F.M. Gauthier of Laval University, chairman of the Cereals Committee of the Quebec Seed Board, and Dr. H.R. Klinck of Macdonald College, McGill University.)

**This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.**

# New Organization of the Department of Agriculture and Colonization

Following recent changes, the chief administrative responsibilities in the Quebec Department of Agriculture and Colonization are now assigned as follows:

Minister:

The Hon. Alcide Courcy.

Deputy Minister:

Dr Ernest Mercier, responsible for planning.

Associate Deputy Minister:

Mr. Roméo Lalande (Deputy Minister of Colonization until 1962), responsible for administration.

Assistant Deputy Minister:

Mr. J.B. Bergevin (formerly Assistant Deputy Minister in the Department of Trade and Commerce), president of the Permanent Committee on Resource Development; responsible for ARDA.

General Director of Rural Development:

Mr. Henri Brunelle.

General Director of Extension or Agricultural Services:

Mr. Lucien Bissonnette.

General Director of Research and Agricultural Education:

Dr Georges Gauthier.

The functions of the three General Directorates under which the former thirty or so services of the Department have now been grouped are as follows:

## 1. General Directorate of Rural Development

With the object of doubling the number of profitable farms in Quebec within the next ten years, the Department is encouraging the consolidation of family farms. This will involve regrouping of farms which, as they are now, cannot be made to pay. It also means that operators of subsistence farms must co-operate in this development.

This is a big undertaking and one that the Department will find difficult unless there is a change in the attitude of many farmers. But it should be remembered that agriculture is essential to human survival and that the family farm (including farms operated by more than one farmer, e.g. father and son(s), brothers, etc.) must be able to meet the competition of large-scale agricultural enterprises such as corporation farms, farms attached to institutions, "amateur" farms, joint farming ventures, and others backed by considerable funds.

The task of regrouping subsistence farms into paying (i.e. viable and

profitable) agricultural units has been assigned to the General Directorate of Rural Development under Mr. Henri Brunelle, formerly Vice-president of the Quebec Farm Credit Bureau. The Directorate comprises four services:

a) **Rural engineering** (drainage, improvement of the physical condition of soils, roads in settlement areas);

b) **Organization of farm lands** in the agricultural zone of Quebec (land use, rural economy);

c) **Farm development** (farm management, farm buildings and machinery, soil conservation and improvement, crop improvement, establishment of young farmers);

d) **Colonization** (establishment of settlers, granting of land, subsidies and premiums).

## 2. General Directorate of Extension or Agricultural Services

If Quebec's agriculture is to play its proper role, and benefit from the increased markets for farm produce resulting from her industrial development, owners of farms (which are units of agricultural industry) must be persuaded to organize and manage their undertakings so that they will pay. This is the task of the General Directorate of Extension or Agricultural Services, administered by Mr. Lucien Bissonnette, formerly director of the Production and Marketing branch. The Directorate comprises three services whose representatives come into immediate contact with farmers or their wives, sons and daughters; these are:

a) **Extension** (local agricultural information offices, young farmers' organizations, domestic economy);

b) **Production and Marketing** (animal sciences, dairy production, horticultural productions, co-operatives, etc.);

c) **Food sanitation** (health of animals, wholesomeness of agricultural products).

## 3. General Directorate of Research and Agricultural Education

The many different skills now required by the farmer, who must be something of a businessman, technician, carpenter, welder, trader, etc., indicate his need for instruction. Besides needing a good basic education and a sound vocational training, he has to be able to master new methods and techniques based on the extensive research being carried on in the various sciences underlying agriculture.

Through its Agricultural Research Council, the Department strives to co-ordinate research conducted in federal provincial, university, and private agricultural research institutions in Quebec, and to ensure that experiments, trials and demonstrations will result in the adoption of the best possible methods of production, protection, processing, etc., of farm products. This Directorate, under Dr Georges Gauthier, comprises three services:

a) **Research and scientific information;**

b) **Veterinary training** (at the university level at Saint-Hyacinthe);

c) **Technical agricultural education** (provided for by the Department — at the secondary level in sixteen vocational schools throughout Quebec, and at the advanced level in two Institutes of Agricultural Technology, at La Pocatière and Saint-Hyacinthe).

In addition to these three General Directorates, there are a number of units responsible directly to the Deputy Minister, namely:

a) Legal advisers;

b) Information (press);

c) Personnel;

d) Technical advisers;

e) Administration.

There are also two Government bodies under the Department's jurisdiction — the Agricultural Marketing Board, and the Quebec Farm Credit Bureau.

The Minister of Agriculture and Colonization is also president of the Corporation of the Quebec Sugar Refinery which is located at Saint-Hilaire.

This new organization should lead to increased efficiency in the efforts of the Department to ensure the survival and prosperity of the family farm in Quebec.

We feel that with the trend to larger farms in the future we will still have the same problems, but on a larger scale. These include insufficient returns from large investments required to operate these farms, farm labour, crop failures, etc." *Tullochgorum Forum, Chateauguay County.*

**This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.**



A field of alfalfa on the farm of Mr. J. A. Montpetit, at St-Stanislas, Beauharnois, provides grazing for the Holstein herds in spite of the drought of the summer of 1960.

## STEPS TOWARD BETTER ALFALFA CROPS

FREDERICTON, N.B., April 30, 1965 — A Canada Department of Agriculture research has pointed the way to bigger and better yields of forage from alfalfa in Eastern Canada farming.

Alfalfa can produce more tons per acre of high-quality forage than any other perennial forage plant, says E.A. Grant, of CDA's Research Station here. He adds that new varieties — including Narragansett, Vernal and DuPuits — tested at Fredericton, were vastly superior to earlier ones.

With developments sparking new interest in alfalfa, the research lists some important management rules for getting the best results with the forage crop.

His recommendations for alfalfa:

- Plant only on well-drained soil that has been limed sufficiently to provide a pH of six or higher. The seed-bed should be smooth and firm.

- Use seed of recommended varieties only. Inoculate the seed.

- At seeding, apply a fertilizer that is high in phosphorus and potash and which also contains boron.

- Once the crop is established, top dress twice a year with a fertilizer which is high in potash content. Boron should be included in one of the dressings.

- Seed with a single grass, either timothy or brome grass. Use only a light companion crop or, preferably, none at all.

- Allow one crop per year to reach the 10 per cent bloom stage.

- Do not cut or graze the crop during September.

Heeding the rules of good management will reward farmers with excellent yields of top-quality forage, the researcher points out.

(From "News from the Canada Department of Agriculture", No 1113)

## WINTER HARDINESS OF ALFALFA

As growers are aware, winter kill is common with alfalfa.

However, a CDA forage plant physiologist points out that damage can be kept down by giving the plants as much chance as possible to harden before the onset of winter. Hardening is a process that takes place in the early fall and involves internal changes that enable plants to survive wintery temperatures.

F.W. Calder of the federal experimental farm at Nappan, says studies there have pinpointed a number of practices that will help the hardening process of alfalfa.

Tests showed that mature plants hardened more and withstood freezing temperatures better than plants which were still in the vegetative stage or approaching the bud stage.

"This points up the importance of early seeding," the researcher explains. A nurse crop may be sown with the alfalfa but it should be a light one and it should be removed early.

The Nappan studies also showed that alfalfa hardened best when it was grown on soil supplied with an ample — but not excessive — amount of moisture. Plants on saturated soil in early fall did not harden properly and were more vulnerable to winter kill.

Use of potassium fertilizer helped the hardening process and resulted in greater winter hardiness, the researchers found. The studies also showed that alfalfa cut frequently, as in a pasture crop, was not as hardy as that cut once or twice for hay and then allowed to regrow before freezing temperatures set in.

(From "News from the Canada Department of Agriculture", No. 1116)

## OAT-BARLEY MIXTURES FOR FEED PRODUCTION

Mixed grain is becoming more important as a feed crop in Eastern Canada.

A high percentage of barley in the crop increases its feed value.

Oats in the mixture practically prevents the possibility of a crop failure — which can happen in some areas when only barley is seeded.

The late Jack Riordon of CDA's Experimental Farm at Nappan, was experimenting with growing mixed grain. By increasing the percentage of barley in the seed, he was able to increase the percentage in the crop without affecting total yield.

Mixtures of Herta barley and Scotian oats were seeded with a grain drill at a constant seeding rate of 2 bushels (80 pounds) per acre. Seven seed lots were made up with different proportions of barley and oats namely: 100, 75, 60, 40, 25, and 0 per cent barley, with oats making up the balance of each seed lot.

Total grain yield in any year was about the same for all seed lots. The mixtures gave slightly higher average yields than either barley or oats alone. In some years barley grew very well and made up a high percentage of the crop. Other years were more favorable to oat production. On the average the percentage of barley in the crop was slightly higher than the percentage seeded.

Growing mixed grain is a reliable way to produce good yields of feed grain. The percentage of barley in the crop will vary from year to year but it can be increased without reducing total yield by increasing the percentage of barley in the seed.

**This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.**

"We think that a farmer must first enjoy the life he has chosen if he is to be successful. There is a bright future for the farmer who is in earnest, who does his work systematically, and is not afraid to take a chance. He must take the poor years with the good ones. A good education, we think, is an added asset to this success" *Ogdensburg Forum, Argenteuil County.*

## CONSTRUCTION OF FARM PONDS

Farmers wishing to construct farm ponds may obtain help from the Department of Agriculture and Colonization.

The Department's assistance consists in providing the technical help needed to plan the project and in subsidizing the work.

### GENERAL REMARKS

This assistance policy is administered by the Agricultural Hydraulics Division in collaboration with the county agronomes.

### CONDITIONS

a) **Site**: Ponds must be constructed away from municipal watercourses and on land having a slope of less than 4%. At its maximum, the water level must not be higher than the lowest part of the natural bank of the pond.

b) **Size**: Ponds must have the following minimum dimensions:

Area of water in the pond at the surface — 6,000 square feet; Depth — at least 10 feet under 25% of the surface.

Excavated material must be spread and not left in heaps round the edge of the pond.

c) **Source of water**: The source of the water in the pond is restricted to:

1. underground water from natural springs or artesian wells;

2. surface water from run-off from natural slopes, but not from municipal watercourses.

d) **Limitations**: This assistance policy applies only to the construction of new ponds and the enlargement or improvement of ponds which have not previously been subsidized. No pond may be subsidized more than once. The benefits of the policy are not available for more than one pond per 100 acres of land.

### PROCEDURE

Professional farmers wishing to take advantage of this assistance policy should ask their county agronomer for the proper application forms and for instructions about the procedure to be followed.

### AGRONOME'S RESPONSIBILITIES

The agronomer will study the applicant's request, satisfy himself that it is in conformity with the requirements of this assistance policy, and prepare his own report on the appropriate form, stating the purpose of the project, an estimate of the possible

financial gains it might bring, and its importance from the standpoint of the local agriculture. He will then send two copies of the documents to the Agricultural Hydraulics Division together with a deposit of ten dollars (not refundable).

### ROLE OF THE AGRICULTURAL HYDRAULICS DIVISION

On receiving the application, the Hydraulics Division will have the proposed site inspected and, in consultation with the agronomer, draw up a plan for the project.

The Division will send the farmer a copy of the plan with details of the financial assistance that the Department of Agriculture and Colonization may grant for its carrying out.

### TECHNICAL AID

The technical help of the Department consists of inspection of the site to ascertain the adequacy of the water source, a study of the topography, surveyings and borings necessary to fix the dimensions of the pond, and preparation of a plan and an estimate, and a report recommending acceptance or rejection of the project.

### FINANCIAL AID

The Department of Agriculture and Colonization may take a grant of fifteen cents per cubic yard of material excavated in the construction of a pond according to plans and estimates prepared by the Agricultural Hydraulics Division.

The grant is payable on production of the appropriate receipts, but may not exceed the total cost of renting equipment nor a maximum of \$500 per pond.

### BENEFICIARIES

Any professional farmer wishing to construct a pond for irrigation purposes in accordance with plans and estimates drawn up by the Agricultural Hydraulics Division.

### REQUIREMENTS

Applicants are required to:

1. Present a request for a grant for carrying out the project, on the form which will be supplied to them with the plans;

**This, and previous page, supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.**

2. Obtain a written promise of the grant from the Department of Agriculture and Colonization;
3. Abide by the requirements of the Department's promissory letter.

This assistance policy will remain in force until further notice.



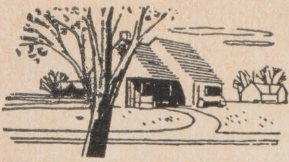
Lucie Moreau makes an early start on her agricultural education, via the family bookcase, at St-Flavien, Lotbiniere.

### BURSARIES FOR GRADUATES IN AGRICULTURE

During the 1964-1965 fiscal period, the Quebec Department of Agriculture and Colonization, through its Agricultural Research Council, has granted 71 bursaries totalling \$96,989 to postgraduate students of agriculture. These bursaries were granted to 44 students and 27 civil servants already holding a degree and wishing to proceed to a higher one. During the year, 9 of the bursary holders obtained their doctorate, 9 the degree of master of science, and 1 qualified as an accountant in industrial management.

The bursary includes payment of fees and certain related expenses, and a living allowance of \$200 a month (which may be increased for Ph. D. students). Instead of receiving the allowance, civil servants are granted leave to study on full pay.

University graduates who want to obtain financial help from the Department in order to pursue advanced studies in agriculture must apply to the Agricultural Research Council not later than the December 15th preceding the academic year for which the bursary is requested. The Council will then satisfy itself as to the candidate's fitness for higher studies. Once it has been granted, the bursary may be renewed from year to year until the proposed degree has been obtained.



# The Better Impulse

NEWS AND VIEWS OF THE  
WOMEN'S INSTITUTES OF QUEBEC



## FROM THE OFFICE

**Handicraft articles for Convention** — be sure to address them to Quebec Women's Institutes, Macdonald College, and not just Handicraft Exhibit.

**Tweedsmuir Competition** — We have received sample copies of 2 books, #508 "Drawn Fabric" and #650 "Drawn Thread". These are 35¢ each, or from a WI group \$3.30 per dozen. The address is as follows: Dept. B, J. & P. Coats (Canada) Ltd., 421 Pie IX Blvd., Montreal 4.

Mrs. Ossington reports a particularly interesting county visit to Oka where she was introduced in Mohawk, French and English. They also had a display of their handicrafts which we are hoping to have for Convention.

## SPECIAL BRANCH PROJECTS WAKEHAM CELEBRATES 20th ANNIVERSARY

May 10th marked the 20th Anniversary of Wakeham W.I. Members and former members were invited to a social evening, with Mrs. E. Patterson, President, welcoming the guests. Minutes of the first meeting were read, and it was noted that Mrs Allen Eden was instrumental in getting the branch started. Corsages were presented to Mrs Allen Eden, Mrs Jack Patterson, Mrs Wilbert Eden and Mrs Whitney Mullin who were charter members and have been in the branch through the years. Mrs Lloyd Annett, Mrs Roy Patterson and Mrs Harold Shannon were other charter members present. Games and contests were enjoyed by all, as were the friendship of the meeting, and the delicious lunch served by the hostess, Mrs Ronald Dumaresq.

## INDIAN NIGHT IN CARNIVAL WEEK

OKA W.I. participated in Carnival Week held some weeks ago. Guests from Caughnawaga, including the Indian Chief and his wife, came to entertain the public with customary songs and dances. A five-piece band provided music for popular dancing. W.I. members prepared a buffet table for guests and entertainers during the Carnival.

## COUNTY PROJECT

Great interest has been sparked in dramatic evenings through the Drama Project if the Q.W.I. Dalesville-

Louisa, Brownsburg, Upper Lachute East End, Frontier and Pioneer, all branches in ARGENTEUIL, under the chairmanship of the County President, Mrs. Stephens presented a series of plays. All plays were so well acted that the judge, Mrs D. McCabe found it difficult to make a decision. The final result was that Pioneer had presented the best production. All agreed that much pleasure had been derived from the Drama Project as well as considerable assistance to branch treasuries from paid admission !)

In **STANSTEAD COUNTY**, a successful drama evening was held, during which branches presented plays. Ayer's Cliff was judged best, with Tomifobia placing second and Stanstead North, third. Stanstead has two other County projects underway — their School Fair for which seeds have been distributed in the schools, and the painting and repair of the Tea Room at Ayers' Cliff Fair.

Most branches report good attendance and good participation at County Conventions. All expressed their appreciation of the messages and interestings and valuable information brought to these meetings by the visiting member of the Provincial Executive.

The Christmas Stocking project nears completion with more branches reporting collection of articles and the packing and valuable information brought the Christmas Stocking Committee under the chairmanship of Mrs. R. Coates, arranged a special display of the gifts collected. Members, friends and several local merchants had contributed articles and were pleased with the interesting display.

Here is an interesting idea ; during the next few months many Institutes will be giving bursaries or scholarships to outstanding students. Where several scholarships are available to the top-ranking student, only, it would be worth considering the giving of assistance to the second-ranking student. This is done by ABERCORN who offer a \$25 scholarship to the student ranking second, who intends to continue education in college, business or nursing.

## OPERATION QUIMAC

The Leadership Course this year was certainly different and from the com-

ments of the delegates, the change was welcome and in keeping with the "revolution" in Quebec.

The delegates arrived Tuesday morning and sessions got underway in the afternoon with Miss Helen Neilson, Director of the School of Household Science, Macdonald College, setting the theme for the Course by speaking on "Resources — For the Future". The members were then divided into discussion groups which included such subjects as "Budgeting your time and resources", led by Miss H. Devereaux; "Community Resources" by Miss M. Findlay; "Self-Development" by Dr. F. Farmer; and "Communication" by Miss D. Raymond, all of the Household Science staff. Speakers were Miss Florence Eadie, our "northern traveller" to the Northwest Territories who practically took us up there with her comments and slides of the 12 Institutes; Mr. L. Perron who illustrated his lecture on landscaping; Mr. Wyse of the Quebec Dept. of Education gave us the latest news on regional schools and Operation 66; and Mrs. Pilon of the Quebec Marketing Board. Mrs. R. Namer gave a pottery demonstration and displayed the work of her class.

Besides all this, there was a workshop on public speaking, College tours, films a banquet, and an uproarious impromptu skit put on by one group Wednesday evening.

The QWI feel it was a very worthwhile course and extend their special thanks and appreciation to Miss Neilson and Mr. Mark Waldron of the Extension Service, who arranged it.

## THE QUEEN ENTERTAINS THE INSTITUTES

You probably have seen this news item in your newspaper, but it bears repeating.

In Britain the WI's are celebrating their Jubilee this year, because it was in 1915 that Mrs. Alfred Watt having moved to England from Canada, started the first WI, in Wales.

The annual Royal garden parties are usually held later in the summer, but to be sure there would be no clash with

*Cont'd on page 22*

# THE MONTH WITH THE W.I.

**ABITIBI EAST:** MALARTIC held a contest to select "Mrs. Q.W.I." of the year from their membership; each member brought a guest to the meeting; held demonstration of frames, samplers and decorated lunch boxes; a sample recipe given. **MATAGAMI:** the film Home Landscaping was shown and was followed by a discussion on Gardening in Matagami.

**ARGENTEUIL:** DALESVILLE-LOUISA answered roll call by reciting a verse from a poem learned in school; coloured slides of local scenes were shown; antiques arranged by Education Convener were on display. **FRONTIER** had slides shown of an International Plowing Match in Germany; sold plants and bulbs; letter read from Pen Pal in Ireland. **JERUSALEM-BETHANY** heard talk on Home Beautification by Mrs Emmett; two contests held, one on different materials, one on "cakes"; each member named a favourite flower. **LAKEFIELD** exchanged favourite recipes; discussed Fair work. **PIONEER:** "Clean Up! Paint Up!" was their roll call; Mrs J. Warwick of Lachute, spoke on and answered questions on "Growing Flowers", soil, potting and care of many plants including roses and begonias; plants and cuttings sold; entertained County Convention. **UPPER LACHUTE EAST END** had as their guest speaker, Mrs V. Shultz, Household Science teacher at Lachute High School who spoke on "Canada's Food Guide", telling the nutritional value of different foods, and how to prepare tastier and more attractive meals.

**BROME:** ABERCORN voted to donate 10¢ per member to Adelaide Hoodless Home Fund; presented gift to Mrs D.B. Sherrer, past president, and FWIC pin to retiring secretary. **AUSTIN** were delighted with report from their Library, showing 106 children and 67 adults as members, many books catalogued and more than 2300 books circulated since September; new encyclopedia, atlas and dictionary purchased for Library; collected cottons for cancer. **KNOWLTON'S LANDING** entertained County Convention. **SOUTH BOLTON** are trying out evening meetings to, permit working members to attend, and to date meetings have been well attended; members have planted small cedar trees, as a start on their centennial project. **SUTTON** are pleased with their new programs, with a special cover designed by Miss Audrey Patten; 10 pair socks and 7 quilt tops donated to Red Cross.

## CHATEAUGUAY - HUNTINGDON:

**AUBREY-RIVERFIELD:** Mrs. A. Hamilton gave interesting talk on handicapped woman who has built a successful business by hand-making and selling gloves made of different leathers; held sale of slips and bulbs and White Elephant Sale; thoroughly enjoyed playing "Charades" with members as amateur actors; entertained County Convention. **DEWITTVILLE** enjoyed a behind-the-scenes tour through Simpson's Store in Montreal. **DUNDEE** saw demonstrations of ideas from Florida e.g. a "Mammy Doll" with full skirt to cover toaster, pretty gingham aprons with cross-stitch design, collection of sea shells and jewellery made from shells, hat made from pipe cleaners and other novelties. Hemmingford heard hints on gardening; heard talk on "Golf" by a member, a topic of special interest in this area with the recent opening of a new golf club in the town; held plant sale; arranged "Made-Believe Tea" as money-raising project; made arrangements for Salvation Army Salvage collection; several members toured the Montreal Star building and learned how a newspaper is published. **HOWICK** saw fashions from 1909-1959 by means of illustrations. **HUNTINGDON** heard recitation for Mother's Day; successful sale of plants and slips. **ORMSTOWN:** Mrs Gill of Ste. Anne's spoke on her trip to the Old Country and to Germany and Holland; large collection of used articles made for Salvation Army.

**COMPTON BROOKBURY** held two bridal showers. **CANTERBURY** held exchange of bulbs and slips; sent Sunshine basket to an older member, and Easter lily plant to member who was ill. **COOKSHIRE** enjoyed talk by Mrs. Wells Coates, speaking on her trip to Saskatchewan where she represented 4 H Clubs; money donated to school bursary; donation to Cancer Society in memory of a departed member. **EAST ANGUS** held series of card parties in members' homes from which a considerable sum was raised for the branch treasury; sheets donated to raise money for branch; used clothing collected for Save the Children. **SAWYERVILLE** gave geranium slips to each member: — these will be judged in the fall to see who has the healthiest and best plant; heard paper on the Canadian Indian; collected used clothing for Save the Children; sent letter to town council, expressing the members' views and requesting implementation of plans to

rebuild Sawyerville Dam. **EAST CLIFTON** heard talk on ARDA by Mrs Wells Coates; exchanged slips and bulbs; held Dutch auction; sent fruit to shut-ins.

**GATINEAU:** EARDLEY collected cottons for Cancer; donated to Red Cross; held 2 contests — one on Jumbled Place Names, one on Famous People. **KAZAZAZUA:** Mrs. Nelson McConnell gave reading on farming and aspects of agriculture; Easter Holy Week contest won by Mrs S. Joynt. **WAKEFIELD** learned more about the Lady Aberdeen Scholarship from Mrs G. Parker; three new members, Mrs M. Clarke, Mrs Z. Wood and Mrs H. Lerstege were warmly welcomed. **WRIGHT:** demonstration on Cake Decorating by Mrs Bruyere; entertained County Convention.

**MEGANTIC:** INVERNESS entertained County Convention; collected cottons for cancer, and used textbooks for Ranfurly Library; potted plants brought in for sale; members turned in \$23 Talent money, and received considerable donation from friends of the W.I. **KINNEAR'S MILLS** welcomed back a member who had been away for some months; held contest on "peel a potato, blindfolded" for which prize was given.

**MISSISQUOI:** COWANSVILLE held an enjoyable social and planning meeting. **DUNHAM** enjoyed a lecture, with slides on the growing of apple trees; sent 10¢ per member to maintenance of Adelaide Hoodless Homestead. **FORDYCE** viewed slides of the unveiling of the Cairn at Dunham, and of a quilting party at Fordyce; started work on Centenary Picnic Plot. **STANBRIDGE EAST** held a contest on the recognition of garden flowers from pictures; held successful food sale; renewed subscription to CAC magazine.

**MONTCALM:** Article on Health, entitled Restless Legs, was read by Miss O. Welsh; had a most interesting and enjoyable evening with Mrs McGibbon as guest speaker; after very informative talk on the work and objectives of the QWI, Mrs McGibbon related a few highlights of her 1962 trip to Australia and the Orient, and displayed some souvenirs from various countries visited.

**PONTIAC:** CLARENDON entertained County President who gave interesting talk on the W.I. and the Provincial Board meeting; for roll call each member gave a recent news item, and paid one cent for each year of her age;

donated to Canadian Institute for the Blind. QUYON celebrated their Nineteenth Birthday by going to Ottawa to see "My Fair Lady" and having dinner "out" afterward. WYMAN-ELMSIDE's guest speaker spoke on Agriculture in particular, but also stressed the importance of Education regardless of what field one enters.

**RICHMOND : CLEVELAND :** a demonstration of Mosaic Tiles given, with several completed pieces on display; contest held on embroidered cushions with Mrs K. Stevens and Mrs G. Perkins as prize-winners; sale of slips and bulbs. **DENISON MILLS :** Mystery parcel won by Mrs C. Carson; 22 dozen pairs of nylon hose collected to be sent to Korea. **GORE :** held sale of donated cotton and elastic; contest held. **MELBOURNE RIDGE :** Mr Martin, Agronomer for Richmond, spoke on Roses, and on different trees and vegetables; school fair prize list and seeds distributed to students; slips and bulb sale. **RICHMOND HILL** held slip and bulb sale; planned dance. **SHIPTON :** Mrs L. Tremblay organized a contest giving each member half an hour to make a "Barbie Doll" dress, with contest won by Mrs M. Gallup; planned a Bazaar Tea. **SPOONER POND :** President Mrs Coles gave an account of her recent visit to Adelaide Hoodless Homestead; for roll call named a favourite flower with the rose being, the most popular; flower competition started with each member receiving aster seeds, flowers to be judged in the fall; sale of slips and bulbs.

**ROUVILLE : ABBOTSFORD** were delighted to entertain Mrs McGibbon and to hear from her about Provincial WI. Mss McGibbon urged members to continue worthwhile work of the Institute with renewed vigour; held a community supper; a fine local history is in preparation by Mrs W. A. Edwards and Miss M. Marshall.

**ROUYN-NORANDA :** ROUYN toured local dairy.

**SHEFFORD :** GRANBY HILL heard articles on Agriculture and on Education; contest on fruits and vegetables held. GRANBY WEST held contest on Everyday Spices and Seasonings used in the kitchen; 10 members successfully completed their St John's Ambulance First Aid Course which has been carried on for some weeks; completed afghan to be entered in Salada contest; two members assisted making bandages at Cancer Society.

**SHERBROOKE :** ASCOT held Apron Parade, and then a sale of same; Mrs McCurdy gave an illustrated talk on her recent holiday in Florida; several pieces of linen drawn work were on display. BELVEDERE welcomed a new member; contest held and prizes



*by Norma E. Holmes*

**DEAR MIN :**

Did I tell you we have our own private (us and the cows) golf course? When Dad visited his brother last fall, Uncle Andrew introduced him to the ancient and honorable game of golf. It did something to him. He brooded and planned all winter and as soon as the snow disappeared he hied him to the pasture, laid out four holes and sank four empty tomato cans complete with red flags (John's old underwear dyed). Now we have a golf course.

Being a cow pasture, we have a few — uh — natural hazards, so we use winter rules — preferred lies. In other words it is quite all right — indeed preferable — to lift your ball. "It's fine for a garden", as Dad says, "but we've not trying to grow bigger golf balls".

We have to take the flags home after the game (?) as the cows seemed to consider them some sort of challenge — maybe dessert after the grass course — so we advance like an army to the battlefield with pennants flying, then gather them up and leave the field to the cows.

One old cow grew quite fascinated by the game, but after a couple of balls bounced off her rump, she seemed to lose interest. Now when anyone

shouts "Fore" she takes off for the tall timbers.

The parson called one day — a beautiful 'hay day' but at 2 o'clock we were still up in the pasture playing golf. I was afraid we would be the topic for a sermon, but we fixed him. We got him to try it and now he's an addict too.

Someone then suggested we could do with another man that afternoon seeing they were so late getting back to work after lunch, but he remembered — in a flash — that he had several other calls he just had to make that very day, and hastily departed. So they worked until it was so dark they couldn't even see the barn doors. It's a wonder they didn't blow the hay up into the house attic by mistake.

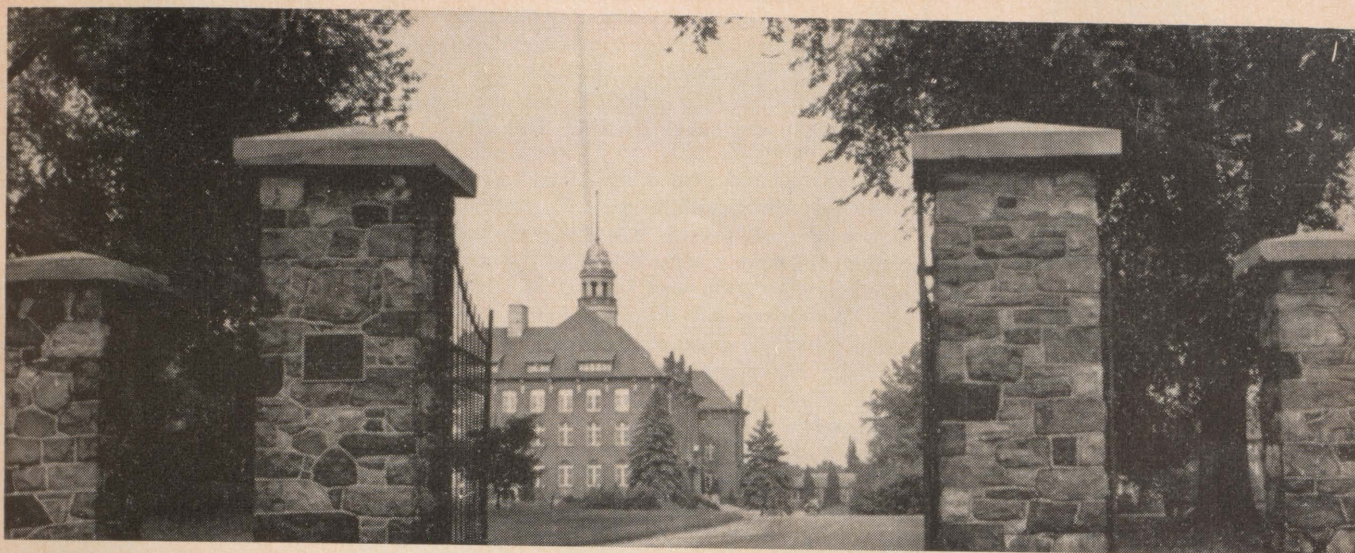
B.G. (before golf) we used to play croquet. That was father's special. He made his own mallet with a long head and a short handle — also his own rules. There was no putting your foot on one ball to send the other flying. He maintained if you were any good at all you didn't need to. We used to play after the chores were done until it was so dark, one held a lantern over the wicket and someone else lighted up the player's ball.

Eloise

given on articles made from one yard of material or one ounce of wool; played Password, with prizes to the winners. **BROMPTON ROAD :** talk given on the Sensible Use of Chemicals in the Home; heard talk on the Beautification Contest, **LENNOXVILLE** heard articles on the care and planting of gladiolus corms, care of wooden ware, and on Canada's growing population; welcomed a new member; worked 10 hours at Cancer Dressing Station. **MILBY** heard Mrs H. Munkittrick, who was instrumental in starting the Maplemont Home for Children in Cookshire, speak on Welfare Work; a beautifully decorated cake, done with coloured marshmallows was made and displayed by a member, Mrs W. Suitor; held successful paper drive.

**STANSTEAD : AYER'S CLIFF :** talk by Mr W. Morgan of Highland Gardens Greenhouses on "The Choice and Care of Annuals", followed by informative question and answer period; exchanged plants, slips and bulbs; canvassed for C N I B; held successful food sale in a local store. **HATLEY** entertained County President and heard report of Semi-Annual. **HATLEY CENTRE** held a benefit card party for a member whose home had been destroyed by fire; exchanged slips and bulbs. **NORTH HATLEY** showed a film — "The Quality of a Nation". **STANSTEAD NORTH** had each member name a favourite flower; held very successful rummage sale; entertained County Convention; held discussion or a cookbook.

## THE COLLEGE PAGE



### CENTENNIAL TRAIL

On May 17th, Dr. W. H. Brittain, scientific advisor, initiated the first planting of white birch on the Canada Birch Trail in the Morgan Arboretum.

This is the Arboretum's centennial project. Thirty-seven specimens were planted this spring on the Trail representing the Provinces of Nova Scotia, New Brunswick, Quebec, Alberta and British Columbia. The Trail will eventually contain representative specimens collected from all Provinces and Territories in Canada.

### 1965 GRADUATES

Twenty-seven students out of seventy who received their Bachelors degree in Science at the Annual McGill Convocation were from the Province of Quebec. Fifty-three of these degrees were in Agriculture and seventeen in Household Science.

In the School of Household Science, Miss Patricia Brennan of Montreal received the Governor-General's Medal, the Harrison Memorial Prize and the University Scholar award for her scholastic accomplishments.

In the Faculty of Agriculture, Mr. George MacNutt of Earltown, Nova Scotia received the Governor General's Medal and the University Scholar awards.

### ERROR

In the May Journal, an error crept into the article by W. W. Lasby, The Market for Beef, Veal and Pork in Quebec and the Maritimes. The first line of the sub-title should read, "Quebec and the Maritimes produce less than 50% of the beef consumed in these areas."

### NEW APPOINTMENT

J. Roger Bider recently joined the staff of Woodlot Management. Professor Bider will take up the position made possible through the Huntly Drummond Fund for Wildlife Biology.

Professor Bider was born at Lachine. Following graduation from Macdonald High School in 1950 and 2 years in the Faculty of Forestry at the University of New Brunswick, he transferred to the University of Montreal, graduating with honours in Biology in 1956. Professor Bider earned a C.I.L. Wildlife Fellowship and his Masters Degree from the University of Montreal in 1959. He is presently completing his doctoral studies.



PROFESSOR BIDER

Professor Bider has extensive experience in teaching and lecturing, and practical experience in hatchery and lake management in Quebec. His experience and enthusiasm for research into this important field of renewable resources management will be a great asset to the Department.

Professor Bider is bilingual and married to Marjorie (née Morphew) and they have five small children. A warm welcome is extended to the Bider family on behalf of all the staff.

### 600 ATTEND SUMMER SCHOOL

The Summer School for Teachers, held at Macdonald College each summer, is sponsored by the Department of Education of Quebec and by the Institute of Education of McGill. The courses are designed to meet the needs of mainly five categories of teachers: those who (1) wish to take refresher courses in the teaching of various subjects; (2) wish to take further academic work to upgrade their diplomas; (3) wish to do graduate work in Education; (5) come from outside this province and are required to take courses to qualify for a Quebec diploma.

The courses vary in length from two to six weeks. All courses sponsored by the Department of Education are offered free of charge. About six hundred teachers are enrolled this year.

### Macdonald Well Represented at A.I.C.

Several members of the Faculty of Agriculture, Macdonald College, attended the recent annual meeting of the Agricultural Institute of Canada at the University of British Columbia in Vancouver.

Those who attended were Dr. Howard Stepler, Chairman of the Agronomy Department; Dr. Lewis Lloyd, Chairman of the Animal Science Department; Dr. Benno Warkentin, Chairman of the Soil Science Department; Prof. Angus MacKenzie of the Soil Science Department; and Prof. John Ogilvie of the Agricultural Engineering Department.

## Old Books Wanted

We're in the market for old books on birds, insects, wildflowers, animals, trees, nature study. Goods prices are offered. Send complete descriptions.

## New Books For Sale

Get more from life by reading books on hunting, fishing, guns, how-to-do, sex, health, home-making, boats, mind improvement, etc. Our prices are post paid (which is cheaper than going to a bookstore). Write for free lists of new books. Open doors to opportunity!

## Clay's Bargains #G62

Bewdley, Ontario

*Cont'd from p. 16*

these, the Queen decided to entertain the Institutes in May. The names of the members who were to represent the WI's were drawn by lot in their own branches. It was a "grey" day, but 9,000 members were on hand to meet the Queen and Prince Philip and stroll around the beautiful palace gardens. Among those present was the president of the Stoney Creek WI, (Ont.) where the first Institute was formed in 1897.

The Queen has a special interest in the Institutes, as do all the Royal ladies. Queen Mary was the first royal member, followed by the then Queen Elizabeth (now the Queen Mother), the Duchesses of Kent and Gloucester. The third generation are carrying on the tradition and the young Duchess of Kent and Princess Alexandra are both active members.

## FLAVORS OF FOODS UNDER ANALYSIS

What researchers are doing with apple juice at Summerland, B.C. these days is everybody's business.

For instance they've broken down the volatile portion of the flavor component into 55 chemicals. And identified 35 of them.

This may not mean much to the man who drinks apple juice — yet. But John S. Matthews of CAD's research station at Summerland points out that the new and unusual science employed in the work is leading to control and improvement of the flavor of many of the items in our diet — fresh and processed fruits vegetables and dairy products.

The work was made possible by gas chromatography, used in the study of things that vaporize, and by the development of new techniques of extracting and concentrating the flavor components.

Now minute components can be detected in foodstuffs, drinks, perfumes and in the rumen of cattle. Even the head space in canned food can be almost completely analyzed in a matter of minutes.

From: *Farm News*, Ottawa, No. 1082

*Cont'd from p. 7*

practical programmes corresponding to the age of the youth, for the new generation to be composed of more men of comprehension and of good will.

It is in all those perspectives that La Cité des Jeunes de Vaudreuil, applying progressively the Parent Report recommendations, will be giving such an orientation by the grouping on the Campus all the needful institutions which will respectively give the youth the academic, the professional and the social education, by offering them a favourable climate of life in a co-education system, social organization and administration of their association, activities, etc., where all students will have the occasion to apply those basic principles of dignity, respect and harmony taught during their courses.

*Cont'd from p. 18*

**TWO MOUNTAINS:** OKA members have been busy in the past few months during which they held a Film Night and Bake Sale; made special presents for 15 local children; saw coloured slides of a trip to Europe and the British Isles shown by a friend, Mrs Heasley and held a most successful Baked Bean and Salad supper to raise funds.

**VAUDREUIL:** HARWOOD held Coffee Party and Bake Sale.

## WHAT'S NEW IN FILMS?

### "APPALOOSA"

Voted top Western documentary of year!

A 30 minute colour film which traces the saga of the Appaloosa Horse from the dawn of history to its many present day uses stock, show, racing, trail ride, hunting, parade, pleasure etc. For television as well as club showing, the film is of interest to both the avid horseman and the person who simply enjoys fine movies. TV star Dale Robertson does the narration. An excellent film. — 16 mm. sound.

For booking of the only print in Canada, write:  
Extension Film Library, Macdonald College, P.Q. Service charge \$1.25 — transportation charges extra.

## SCHOOL BURSARY WINNER

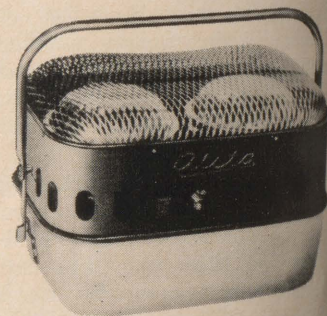
Here is a good example of cooperation: COOKSHIRE Branch and EAST ANGUS Branch combined their resources to provide a \$50 School Bursary, which was awarded this year to Miss Phyllis Todd.



Naturalflow Maple Sap Plastic Tubes & Supplies Ltd.  
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## New! ALITA New!

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